

# V3NLP: A Text Processing System for Clinical Notes

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# From Text to Coded Data

- Text processing, natural language processing, information extraction, text mining

The patient is a 67 yr white male with FH of CHF. He complained of lowed back pain and SOB.....



Date	PID	Finding	Status
xxxx	xxx	CHF	Family History
xxxx	xxx	Low Back Pain	Current
xxxx	xxx	SOB	Current

# General Approach

- Analyze the task
- Select tools and methods
- Evaluate results

# Three Main Approaches

- Regular expression
  - If we know the exact text pattern to search for
- Ontology/dictionary based approach
  - If there is existing knowledge
- Machine learning
  - If there is sufficient annotated data
- Mix and match different approaches based on specific clinical tasks



# Main Components

- Interface
- Library of NLP modules
- Framework
- Common data model and shared annotation labels

# Features in New Release

- New negation modules
- DB saving option
- Fast indexing modules

# Next Steps

- Update the existing V3NLP on VINCI
- Release V3NLP as open source software
- Incorporate new modules and features



# Questions & Comments

- We would like to hear about your NLP needs
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